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(54) Title: HEMOFILTRATION SYSTEMS, METHODS, AND DEVICES USED TO TREAT INFLAMMATORY MEDIATOR
RELATED DISEASE

(57) Abstract

A hemofiltration system for a mammal comprises a hemofilter and an adsorbent device. The hemofilter removes ultrafiltrate from a blood stream extracted from the mammal to create a filtered blood stream and an ultrafiltrate stream. The adsorbent device is comprised of one or more adsorbent materials and is used to adsorb inflammatory mediators from the ultrafiltrate stream received from the hemofilter removing inflammatory mediators that cause inflammatory mediator related disease, sepsis, and SIRS/MODS/MOSF to create a post adsorption ultrafiltrate stream. The post adsorption ultrafiltrate stream is selectively combined with the filtered blood stream and together with the filtered blood stream is returned to the mammal. A hemofiltration process for a mammal is comprised of the following steps: (a) removing blood from the mammal to create a blood stream; (b) filtering the blood stream to remove ultrafiltrate from the blood to create an ultrafiltrate stream and a filtered blood stream; (c) adsorption of the inflammatory mediators from the ultrafiltrate stream that cause inflammatory mediator related disease, sepsis, SIRS/MODS/MOSF to create a post adsorption ultrafiltrate stream; (d) combining the post adsorption ultrafiltrate stream with the filtered blood stream to create a post adsorption ultrafiltrate/filtered blood stream; and (e) returning the post adsorption ultrafiltrate/filtered blood stream to the mammal.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both, national classification and IPC)

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A61M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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| Y | | 10, 31 |
| A | -- | 8, 11-19 |
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☐ Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT

Int. onal Application No

PCT/US 99/15426

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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ANHANG

zum internationalen Recherchen-
bericht über die internationale
Patentmeldung Nr.

ANNEX

to the International Search
Report to the International Patent
Application No.

ANNEXE

au rapport de recherche inter-
national relatif à la demande de brevet
international n°

PCT/US 99/15426 SAE 242625

In diesen Anhang sind die Mitglieder
der Patentfamilien der in obenge-
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